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POLITICAL AND SOCIOLOGICAL

FINANCE MINISTRY FALLS INTO PUBLIC CONTEMPT FOR MISUSE OF TAX MONEY

Tokyo KEIZAI TENBO in Japanese 1 Dec 79 pp 26-29

[Text] Unauthorized salaries, unauthorized bonuses and in extreme cases, falsifying travel vouchers are some of the scandalous abuses of public expense that have come into the open, and public outrage has grown. Moreover, believe it or not, since public money was used to pay for entertaining the officials of the Finance Ministry, the public's sharp criticisms centered around the Finance Ministry. While the Finance Ministry is in the midst of tackling financial reconstruction, the Liberal Democratic Party [LDP] was disastrously defeated in the general election, and the brake was put on the early introduction of the general consumption tax--which they had counted on for support--the suffering of the Finance Ministry is getting greater lately.

Troubled Nagaoka, the Vice Minister of Finance Ministry

October 1979 was a very "unlucky month" for the Finance Ministry. On the 7th, the voting day for general election, due to the "power reverse" in the Budget Committee gaining more opposition party members over ruling party members, the officials of the Finance Ministry have been experiencing, more than usual, difficulty in carrying out budget council meetings every year, and this general election was supposed to have turned this situation around. By recovering again the position of stabilizing influence of the ruling party in the Diet where the LDP occupies more than half of the seats and with the introduction of the general consumption tax as a pillar, they were hoping to begin financial reconstruction.

However, the result of the general election was unexpectedly a disastrous defeat for the LDP. Not only for Prime Minister Ohira but for the ministry officials this was a shocking situation. For instance, the situation was such that in the case of Minoru Nagaoka, the vice minister of the Finance Ministry, who is at the top of the ministry officials, when the outcome of the general election became certain on the night of the 8th, he went home immediately and was taken ill because of the shock. The next morning, on the 9th, he made the remark, "Tonight I'm going to drink out of sheer despair till the dead of night."

This blow which the Finance Ministry received in the last general election of course can affect the steering of the Diet in the future, but that's not all. The important Budget Committee is still remaining as a committee with the majority of the members from the opposition parties and in establishing the budget they will be having a very difficult time. Moreover, it is true that the Finance Ministry had something to do with the very reason why the LDP was defeated in the general election.

One of the very reasons was [Ohira's] idea to introduce the general consumption tax and the other "bureaucratic paradise." As a result, there is a feeling of deep-rooted hostility among LDP Diet members, and the ones who lost in the election because of these two issues they were placed in a situation to face a hard fight in the election, or many newly elected Diet members who returned to Tokyo after finishing their election campaign complained to the high-ranking ministry officials personally or over the phone.

As far as the general consumption tax is concerned, the officials of the Finance Ministry were prepared for the reaction of the general public to a certain extent prior to the general election. However, the intense negative feeling of the people toward the ministry was more than what they had anticipated. On the other hand, the case of "bureaucratic paradise" following the issue of mismanagement of accounts by the Japan Railway Construction Corporation [JRCC] suddenly surfaced after the general election campaign was launched. These two problems ["bureaucratic paradise" and "JRCC scandal"] are interrelated.

For some time the Finance Ministry has been stressing how important the financial reconstruction is to Japanese politics. Especially, next year's budget is so tight that there is no more reserve and it will take drastic measures to cut the annual expenditure. On the other hand they concluded that curbing annual expenditures and the gradual increase of taxes alone would not make economic reconstruction possible and they appealed to the people for increased taxation, specifically speaking, an early introduction of general consumption tax.

Just at this crucial time, not only has the people's tax money been appropriated to the unauthorized salaries and unauthorized bonuses to public corporations or public organizations, but also there have been cases of falsifying travel vouchers and being paid for it at the offices of various ministries. The question such as "what has happened to the Finance Ministry's investigation?" will naturally be brought up, however, the situation does not rest here. For instance by using public tax money, politics at dinner parties and entertainment for the bureaucrats were being carried on among the public servants. Moreover, the fact that the Finance Ministry was sitting at the base of this wrongdoing was exposed one after another. This is absolutely incomprehensible for the people who are being subjected to increased taxation and one can't say that this has no connection with the crushing defeat of the Liberal

Democratic Party, which is led by Prime Minister Ohira who has been insisting that the "increase in tax is unavoidable."

Can the Budget Be Made at Night?

However, there were indications that the reaction of the officials in the Finance Ministry was that they were taking the problem of "bureaucratic paradise" not very seriously at first. "What is the use of fretting over such small problems!" was the remark often heard within the ministry. However, around the time when the LDP suffered a crushing defeat, the mood underwent a sudden change.

Even after the election campaign was over, the true stories of the "bureaucratic paradise" were revealed one after the other by the media. Some articles were questionable but prevalent voices such as "the way things are going, we will not be able to get through the Diet sessions" or "not to mention the tax increase, we doubt if we can ride out Diet interpellations" were heard.

Certainly the Finance Ministry officials are attending dinner parties quite frequently. When it comes to mid-level positions such as bureau directors and higher, assistant heads, section heads and councillors of the Finance Ministry, one will see them making a hasty exit every night from around 6:00 and it is the dead of night when they get home.

Of course, among these night outs there are private get-togethers, class reunions, and alumni meetings. However, invitations from business and financial circles or invitations from other public offices account for over half. Especially, in the case of the Financial Bureau which formulates the plans for financial investment and loans for the Budget Bureau who examines the formulated budget, there is no mistake that the number of invitations to its members for night entertainment from the clients are overwhelming.

How did the Finance Ministry officials handle these publicly financed dinner parties? The voice heard among the chiefs and assistant chiefs of the Budget Bureau is that "we are not exactly pleased about attending these dinner parties," "one shouldn't be considered having fun only because he dined and had drinks with some bureaucrats with whom he hasn't had close contact." They also say, "once in a while we too would like to go home early and eat a bowl of 'ochazuke' rice soaked in tea and eat it with pickles and go to bed."

Then why are there such entertainments? The explanation is that this is a Japanese way of establishing relationships. In Japanese society, business is not finished at the end of each day. People [bureaucrats] put on a "front" during work hours, and only after work do they show their true colors. Moreover, there is the benefit of getting acquainted with one another. That is why corporations have their expense accounts

and expense accountants. This is a custom handed down since the days of Edo where the caretakers, left back in Edo, conduct the strategy of dining and wining. Of course, you cannot say there is no connection between this Japanese custom and the government office district in Kasumigaseki.

Dining and drinking at night is recognized as a kind of lubricant. So Japanese night clubs in the Ginza and Ryotei (Japanese-style restaurant) districts are able to survive. In the case of corporation officials, these areas become an "Expense Account Paradise" but in the case of high-ranking officials in the public offices, these districts become a "Bureaucratic Paradise." As a result, if public office A has to ask a favor of B office, then A entertains B.

Moreover, as the economic and social structure becomes more complicated, the administrative problems related to various public offices also increase. As a result, A entertains B, B entertains C, and C entertains A. However, the ones that get invited most are the officials of the Finance Ministry who hold power over the compilation of budget and financial investment. The money they spend for entertainment comes from taxes. Since there is no expense account included in the budget, they divert the money in the name of convention fees, or falsify travel vouchers for "entertainment." Bureaucrats in the Finance Ministry should be closely examining these expenses. They know very well that expense accounts do not exist in the budget, yet they have been accepting the invitations. The fact that this is not taken up as an issue itself doesn't make sense.

The Mountain Has Brought Forth Two Mice

The Finance Ministry bureaucrats have consistently been saying: "If it's on the socially acceptable level..." However, it is obvious things have reached the point where it cannot be ignored. Under these circumstances attitudes of Nagaoka, the vice minister who is in charge of the ministry, and Yasuo Matsushita, the chief secretary, have changed to a more serious side! Particularly, the practice that a part of the money was being contrived by falsifying accounts at the Japan Railway Construction Corporation (JRCC) was being used to entertain the Finance Ministry officials was revealed and in some instances it was reported that "the Finance Ministry side also demanded evening entertainment" or the Finance Ministry officials charged entertainment expenses against JRCC account.

As a result, Vice Minister Nagaoka ordered Chief Secretary Matsushita to conduct a fact-finding survey, and to comply with Nagaoka's order, Matsushita was made head of the committee and three division chiefs and the administrative chiefs of various bureaus made members. The "Official General Investigation Committee" was established on 19 October, and it began the fact-finding survey and formulating rules on entertaining. In order to complete the work in time before the new cabinet is inaugurated, and before work on the compilation of the new budget and Diet session

goes full swing, they pushed the operation with great speed and by 29 October the committee tentatively announced the result.

Speaking of the text of the fact-finding survey report it became clear that indeed Finance Ministry officials were often entertained with money derived from the falsified accounts of the Japan Railway Construction Corporation. According to Matsushita, chief secretary, the survey covering the period of April 1978 to July 1979 showed there were 122 cases and the number of entertained officials in both Budget and Finance bureaus was 30. As to the expense involved, money spent on Finance Ministry officials was around ¥1,300,000 and if public corporation members who attended the parties were to be included, the amount of money spent for both bureaucrats and corporation men adds up to ¥3,200,000.

According to the report, the expense for entertainment is not much, and, says Matsushita, chief secretary, that individual cases involved only having a snack or having a small dinner at a restaurant in the basement of some building. Mainly they were of this type. Moreover, the money for dinner parties held at expensive restaurants (Japanese style) comes out of conference expenses and it is not included here, so perhaps the amount remains at this low level. There are many personal level invitations to dinner which usually begin with a simple conversation such as "let's have dinner together." This agrees with what members of the Budget Bureau were saying. It is also reported that there was no "coercing into inviting ministry officials or illegal charging (accounts)."

As a result, only those--the assistant to the Transportation Division chief (now under the Budget Bureau) in the Budget Bureau and two members who worked in the same division--who were invited repeatedly and continuously were verbally reprimanded and transferred. The rest were considered to have behaved within the framework which is socially acceptable. The Budget Bureau officials who served in the past, who hold higher positions than those three, the bureau's deputy chief and bureau chief were criticized for their supervisory irresponsibilities. Also, those who accepted dinner entertainment given by public corporations other than the Japan Railway Construction Corporation were given a strict order to take precautions steps and were never investigated. The matter was dropped with the assumption that those officials behaved "within the socially acceptable framework." It was very unfortunate for these two who were actually punished.

Needless to say, the two--Nagaoka, the vice minister, and Matsushita, chief secretary--instead of simply receiving verbal reprimand and being advised to take strict precautions under the ministerial law, were punished under the National Public Service Law which is punishment a step more severe. This is because in addition to neglecting the supervisory responsibility as former Budget Bureau chief and assistant chief, but also as secretariat officers they neglected the duty as overseers in dealing with excessive entertainments and correcting the situation. In

other words they took the blame for the numerous charges against the Finance Ministry. Of course, Nagaoka is already the top official and Matsushita is virtually considered to become an assistant, and it seems nothing can possibly smear their records. Consequently criticisms are heard outside the Finance Ministry that "for the Finance Ministry, which had spent tax money to dine and wine, wasn't the punishment it received too light?"

Coinciding with the announcement of the punishment, the chief of the secretariat made an announcement that strict guidelines concerning official behavior will be issued. The essence of the guidelines is that "any invitation for 'entertainment' in connection with work cannot be accepted. To receive gifts from outside visitors and also to receive mid-summer and year-end seasonal gifts are prohibited." After all, it has been said that in order to put an end to dinner party politics, the practice has to be contained at the Finance Ministry first, where most of the invitations to the dinner party went, so these guidelines have been considered as a step toward progress.

"Common Sense" Is Anything But Precise

If "common sense" should rule as defined by the Finance Ministry, it will be difficult to draw a line when accepting or rejecting invitations. There is no way of stopping it and eventually one could end up being entertained every night. Unless dinner party politics are uniformly banned at all levels, the amount of political entertainment will not decrease.

For this reason, I am concerned about this word, "general rule." Matsushita, chief secretary, explains that emphasis is on the word "prohibited." If the negative value stemming from refusal is larger than that of accepting, then accept. For instance, it is all right to accept an invitation for "entertainment" for the purpose of getting acquainted with, as a matter of courtesy, the new members of the office in the event of personnel transfer. "And if it is just having a snack within the governmental building it is all right. However, having a banquet accompanied by geishas is out of the question." As a rule, one must discuss with the chief of the Coordination Bureau before accepting any invitation.

In the past one would find a great number of Finance Ministry officials entertained in the vicinity of Akasaka and Shimbashi, but now they are certainly to disappear from that night scene. In the history of the Finance Ministry this is unprecedented and it would be a remarkable phenomenon. Even before the practice was ordered stopped, and soon after a "bureaucratic paradise" was revealed and the public outrage grew, it is true that Finance Ministry officials started going home early.

No matter how you look at it, public officials entertaining each other by using tax money is ridiculous. Even though one might have an excuse for his action because he was behaving according to Japanese custom and tradition, there was an enormous gap one can detect (in the sense of duty held by the bureaucrats when they were out of Kasumigaseki [government office district] and/or within their office building. The practice of "dinner-party politics" has temporarily been ordered stopped, however the other charges against public corporations, and other public organizations--which are also considered to be "bureaucratic paradises," a problematical issue--accused of falsifying travel vouchers for "extra" bonuses have not yet been made clear.

While Finance Ministry officials are evaluated according to the civil service regulations, corporation personnel unlike the civil service workers are under the scrutiny of the three legal rights of labor. So, by adhering to the three legal rights of labor voluntary labor-management negotiations are made, and even a compromise is reached according to individual standard. However both parties will find there isn't even enough financial resources to cover regular expenses that would be more than that of public workers. If one tries to make an issue of three legal rights of labor, it will be a tremendous problem, however, there is no reason to assess, right from the beginning, the matter too lightly.

For this reason, even now, no good measure to correct [the situation] has been taken, but unless this problem is solved soon, there is no question that [the new] budget will be questioned intensely. For the Finance Ministry which is facing a crucial stage of formulating the new fiscal year budget, the existence of a "bureaucratic paradise" is a troublesome issue; so as long as the Finance Ministry cannot solve this problem they cannot possibly face intense interpellation with pride.

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CSO: 4105

POLITICAL AND SOCIOLOGICAL

BRIEFS

LDP LEADERS RAP OHIRA--Former Prime Minister Takeo Fukuda and Takeo Miki, and former Liberal-Democratic Party secretary-general Yasuhiro Nakasone met Tuesday with the apparent intention of showing their criticism of Prime Minister Masayoshi Ohira's political behavior. The meeting marked the first gathering of the three senior Diet members--all powerful factional leaders within the ruling conservative party--since a bitter internal power struggle after last year's general election that almost forced Ohira out of power. The two-hour talks were described as a get-together to exchange views on LDP reform, improvement of political ethics, and the nation's defense problems and foreign policy. Many party members, however, took the trio's meeting to mean that they wanted to demonstrate they have not changed their critical stance against Ohira. In the intraparty dispute last year, the three men called for Ohira's ouster and blamed the prime minister for the LDP's poor showing at the polls. [Text] [OW200915 Tokyo THE JAPAN TIMES in English 19 Mar 80 p 4 OW]

CSO: 4120

MILITARY

ASDF APW TEST PROGRAMS FOR FY'S 1980-84

Tokyo JPE AVIATION REPORT-WEEKLY in English 9 Mar 80 pp 6-8

[Text]

The ASDF Air Proving Wing (APW) at Gifu is occupied with test programs on new equipment and systems under development for the ASDF. During FY 1979, the APW carried out tests on the XASM-1 air-to-ship missile for use with the F-1 support fighter, the XJ/ALQ-6 airborne ECM system, the XJ/FRQ-501 over-the-horizon communications equipment, and a new surface target vessel. Reports on these tests are now being prepared for submission to the Air Staff Office before the end of March.

Major test programs scheduled for FYs 1980-84 follow:-

Aircraft

F-15 fighter: The first two F-15 fighters built in the US will be delivered in March 1981. They will be flight tested for about one year in FY 1981.

CCV prototype: A single prototype of the CCV (control-configured vehicle) based on the T-2 supersonic trainer will undergo technical tests during FYs 1982-83.

E-2C AEW: Two E-2C airborne early warning aircraft will undergo operational tests at Misawa for about one year from February or March 1982.

C-1 FTB: A C-1 flying test bed for a small turbofan engine will be tested during FYs 1981-82.

LAPES: Tests of the LAPES (low-altitude pallet extraction system) of the C-1 tactical transport will be conducted in FY 1981 provided funds are authorized.

H-X: In relation to a program for a new heavy-lift helicopter, technical tests will be carried out in the middle part of FY 1981. Operational tests will be conducted in FY 1984.

Guided weapons

AIM-7: Monitoring tests will continue until the early part of FY 1982 on this air-to-air missile.

XASM-1: Monitoring tests will continue for this Japanese air-to-ship missile until FY 1981 to be followed by formal adoption of the missile in the ASDF weapons inventory.

Air combat missile: During FY 1980, tests on the homing system will be conducted.

Nike-X: Plans are fluid pending selection of a successor to the Nike-Hercules (J) SAM currently in service.

Airborne electronic equipment

ALQ-8 ECM: Technical and operational tests will be conducted during FYs 1981-82.

APR-4: The system will be tested during FYs 1980-81.

ALQ-5 ECM: Tests will be conducted during FYs 1983-84.

ALQ-10 ECM: Plans are unavailable.

ALR-1 ELINT: Tests on this electronic intelligence system are scheduled in FY 1982.

Ground electronic equipment

Thunderstorm detection system: A prototype will be tested in FY 1981.

J/FPS-2 radar: This modified fixed three-dimensional radar system will undergo operational tests in FY 1980.

J/TPS-101: An improved version of the mobile three-dimensional radar will be tested in FY 1981 as a final step toward adoption.

AN/FLR-12: This electromagnetic wave measuring equipment will be tested during FYs 1980-82.

BADGE-X: Plans are undecided pending selection of a replacement for the current BADGE (base air defense ground environment) system.

MILITARY

ASDF TO SEND MISSION TO U.S. FOR E-2C FAMILIARIZATION

Tokyo JPE AVIATION REPORT-WEEKLY in English 12 Mar 80 p 6

[Text]

The Air Self-Defense Force (ASDF) will dispatch a survey mission to the United States from around March 20 to mid-April in its effort to build up the operation, supply, maintenance and training setup for introduction of the Grumman E-2C airborne early warning aircraft starting in December 1982.

The five-man team, to be led by Col.A. Shiratori of the Air Staff Office Materiel Division, will collect data for estimating costs for initial purchase of E-2C spare parts and maintenance equipment in FY 1981 (April 1981-March 1982). Its survey is expected to center on spare parts as another mission sent to the United States in August 1979 studied maintenance equipment. The survey mission will also discuss problems involved in logistical support of the flying radar system with the US Navy to follow up a US Navy team's six-week survey in Japan ending Feb. 29.

The American mission held talks with ASDF officials on E-2C logistic support problems and visited ASDF bases and other facilities in Misawa, Chitose, Miho, Iruma, Tachikawa, Ichigaya, Gifu and Hamamatsu as well as designated E-2C repair and overhaul shops--KHI, IHI, Sumitomo Precision, Tokyo Keiki and Toshiba. Based on the survey, it will draft an E-2C technical and logistical support program and prepare a Japan-US agreement on recommendations about logistical support of the ASDF E-2C.

CSO: 4120

MILITARY

MT-X TO BE DESIGNED AS MULTIMISSION AIRCRAFT

Tokyo JPE AVIATION REPORT-WEEKLY in English 12 Mar 80 p 7

[Text]

The ASDF is expected to design the MT-X next-generation medium jet trainer as a multi-mission aircraft to cover not only training but also such missions as towing target drones.

The MT-X will replace the current T-33A and T-1A/B trainers which will probably be retired from service in the latter half of the 1980s and after. The ASDF will draw up its plan on the MT-X program within the internal bureaus of the Defense Agency in order to start development in FY 1981 starting in April 1981, according to informed sources.

In the course of studying requirements of the MT-X, it will consider utility missions and modernization of training syllabus as well as current missions performed by present jet trainers, the sources say.

Another major subject will be how to control costs such as operational and maintenance after production and deployment as authorization of the project is expected to depend mainly on financial aspects as well as the technical background, they say.

Meanwhile, funds have been authorized in the FY 1980 budget for the TR&DI's initial fabrication of the XF-3-20 small turbofan engine which is designed to power the MT-X. A prototype engine has achieved a maximum thrust of over 1.6 tons in past tests. Smooth progress in the XF-3-20 engine development may play a major role in promoting the MT-X program.

CSO: 4120

MILITARY

GSDF REPORT ON AH-1S HELICOPTER DUE SOON

Tokyo JPE AVIATION REPORT-WEEKLY in English 12 Mar 80 pp 7-8

[Text]

The GSDF is expected to release a report during March on the Bell AH-1S antitank helicopter evaluation tests to provide the basis for its plan to activate 3.5 squadrons of antitank helicopters. The full-scale AH-1S procurement program is being prepared and is scheduled to start in FY 1981.

The first GSDF AH-1S helicopter was delivered in June 1979. It has been undergoing various operational tests, including firing tests of the TOW wire-guided antitank air-to-surface missile. The report will confirm excellent performance and other capabilities of the antitank helicopter currently in service with the US Army.

A second AH-1S is scheduled to be delivered in April. It will be used with the first helicopter for operational tests on formation flights until July. A final report will be made in June based on the tests using the two helicopters.

Inclusion of the AH-1S program in the FY 1981 draft budget, however, will proceed based on data contained in the interim report due in March. The final report to be issued in July will essentially be a supplement to the March one.

CSO: 4120

MILITARY

MSDF PROSPECTS FOR SHIPBUILDING PROGRAM FOR FY 1981

Tokyo JPE AVIATION REPORT-WEEKLY in English 12 Mar 80 p 8

[Text]

During FYs 1981-84, the MSDF plans to place orders for a total of 33 ships. They include two DDGs, eight DDs, three DEs, four submarines, nine mine-sweepers, one PMX highspeed coastal patrol boat, one submarine tender, and five other types.

For FY 1981, the MSDF is expected to request funds for construction of at least 10 ships including one DDG, three DDs, one submarine, two mine-sweepers, one PMX missile-armed patrol boat, one submarine tender, and one surveying ship. Funds needed for these will total ¥250,000 million.

Top priority in the planned FY 1981 buy will be given to a DDG of a new design. Funds for this will be authorized without modification since there are only four of the authorized eight DDGs in service with the MSDF. A further DDG is scheduled to be constructed during the FY '78 NTDP.

The new DDG will have better armament as well as advanced equipment and systems against noise and infrared sources. For its main powerplant, a decision will be made between the three alternative configurations currently under study. The TR&DI, JDA, will finalize its studies for the MSDF by mid-April. The three configurations include a steam turbine type and two COGAG types. Selection of the gasturbine types lies between a system comprising four IM2000 engines and a system with two each units of the Rolls-Royce Olympus and Spey engines.

Selection of the PMX missile-armed highspeed coastal patrol boat will be made between the PHM, a military version of a commercial jetfoil craft and one of the hydrofoil type.

C50: 4120

MILITARY

BRIEFS

SOVIET BUILD-UP--Tokyo, March 12 KYODO--Defense Agency Director General Kichizo Hosoda said in the Diet Wednesday the Soviet Union is posting an intensifying threat to Japan with military buildups on three of four Soviet-held northern islands off Hokkaido. Hosoda made the remark in answer to a question by Kazuo Tanaki, a ruling Liberal-Democratic Party dietman, at a session of the House of Councillors Budget Committee. Hisahiko Okazaki, counsellor of the agency, also told the session that the Soviet Union had built up its forces from 180,000 men in 17 divisions in 1968 to 300,000 men in 30 divisions in 1972 after the Sino-Soviet border conflicts, probably against China. Okazaki added that Soviet forces had been built up to 350,000 men in 34 divisions since around 1976 in areas near the Pacific Coast. He added that two more divisions were added to the Soviet Far East Military District from last year into this year. He said the Defense Agency was seriously concerned about the recent Soviet military buildup which might be against Japan. [Text] [Tokyo KYODO in English (no time given) 12 Mar 80 OW]

CSO: 4120

ECONOMIC

GOVERNMENT PRESENTS ENERGY SAVING MEASURES

Tokyo TSUSAN JANARU 1r: Japanese Feb 80 pp 138-141

[Article: "Measures To Cut Consumption and Save Oil Which Had Been Under Discussion Were Concluded on 11 January by Ministerial Council To Promote Overall Energy Conservation"]

[Text] 1. The international oil situation as it affects Japan is in an extremely unstable condition due to production trends in the oil producing countries, changes in the oil supplying structure, and recent tension in United States-Iran relations, leaving little room for optimism.

2. All of the countries represented at the recent meeting of the IEA directorate, recognizing the critical energy situation, agreed to adhere strictly to the established oil import ceiling respectively and to promote restrictive controls on oil requirements and to cope with the difficult situation through international cooperation.

3. In this atmosphere, Japan must achieve the goal of a planned 4.8 percent economic growth rate for the next fiscal year, with an oil import ceiling of 5.4 million barrels per day agreed on at the Tokyo Summit and the IEA. This will not be easy.

4. Taking into account the economic growth set for next fiscal year and the supply and demand trend of oil, oil consumption will have to be reduced by 7 percent (over 20 million kiloliters), which is even greater than the 5-percent (over 15 million kiloliters) cut effected during this fiscal year. This means that the level of oil consumption in the coming fiscal year will have to be held to this fiscal year's level, and that the oil conservation measures effected last March not only be fulfilled to the extent of 5 percent cut but by implementing the energy conservation and source fuel conversion measures described below, to realize a 7-percent reduction in oil consumption.

Additionally, energy conservation over the intermediate and long range will have to be realized by restructuring the energy consuming areas of industry, everyday living, and transportation. To accomplish this, conversion of oil burners and introduction of alternate fuels while giving environmental factors due consideration must be planned.

Note

Heating Energy Conservation Measures

- 1) Administrative and managerial sections in government and private sector office buildings, retail establishments such as department stores and super-markets, hotels, inns, motion picture theaters and other entertainment halls, places of popular amusement, businesses, commercial food and drink places, service establishments, and family residences should not be heated during winter months in excess of 18 degrees, and insofar as it does not interfere with normal conduct of business, the heating season and heating hours per day should be reduced to less than those of previous years. Every effort should be made to conserve energy used for heating.
- 2) The various government ministries and agencies will make actual heat level inspective surveys of buildings housing government related organizations and industrial facilities under their respective cognizance and offer suitable guidance based on the findings.

Conservation Measure for Production Sector

- 1) To assure the observance of standards for optimal consumption of energy on the basis of estimates made by industrialists of specific energy controlled factories, responsible ministries and agencies will collect and study data. They then shall report in detail, from the standpoint of rational use of energy regulations, the status of effectiveness of fuel consumption, collection and regeneration of wasted heat, prevention of damage and loss of electricity in the industrial facilities under their respective cognizance. Based on the results of these investigative reports necessary guidance shall be offered to concerned facilities.
- 2) The Ministry of International Trade and Industry (MITI) will vigorously persuade the electric power industry to convert from oil to nuclear, liquefied natural gas (LNG), coal, and other fuels and to coal in the cement and other industries.

Conservation Measures in Transportation Sector

- 1) The Transportation Ministry will urge the National Railways to seriously consider ways and means for reducing or cutting out those trains which serve minimally, and simultaneously urge the airlines to continue reduced air service during the winter months.

- 2) The Transportation Ministry will redouble its efforts in guiding the transportation industry to optimize the effectiveness of heating and cooling its rolling stock.
- 3) The Police Agency will continue to promote automobile fuel conservation through traffic control, and cut electricity consumption through improvements in signal lights.
- 4) The Police Agency and Transportation Ministry will redouble their efforts to get automobile drivers and persons in the industry to observe economical driving speeds (about 40 kilometers per hour on regular highways and approximately 80 kilometers per hour on superhighways) and giving the subject broad public relations promotion.
- 5) The various government ministries and agencies and other government organs should prohibit employees from using their private cars to travel to and from work except where there are circumstances which make it unavoidable. Public groups in outlying districts should also be strongly urged to observe this restriction. Related organizations, industries, and educational institutions should also be urged against use of private cars to commute to and from work or school.

Other Measures

- 1) The Ministry of Posts and Telecommunications will strongly urge private broadcasting companies to show maximum restraint at the time of program revisions, in scheduling any telecasts after 12 midnight.
- 2) MITI will make further efforts to get concerned businesses to extinguish all advertising and decorative lighting after 10 p.m.
- 3) The Police Agency will make further efforts to get cabarets, bars, and other popular amusement businesses to strictly observe their closing hours.
- 4) MITI and other concerned ministries and agencies will urge all all-night retailers and eating and drinking places to cut their business hours down to a minimum.
- 5) The Economic Planning Agency will offer added support to movements promoted by regional groups in the provinces aimed at conservation of resources and energy.
- 6) The fourth quarter survey now being conducted on progress being made in energy conservation by major users will continue into next fiscal year, and the responsible ministries and agencies will offer necessary guidance to the concerned parties on the basis of findings of the current survey.

7) "Conserve Energy Month"--February of this year--will be given wide publicity; all ministries and agencies will promote it vigorously and solicit the cooperation of regional public sector groups in this effort.

MITI Minister Sasaki's Comments:

The implementation of this conservation program had to be postponed because several difficult problems arose. However, if the concerned ministries and agencies will give serious and forward looking consideration to the points listed below, making energy conservation a people's project, the goal of 7 percent savings can be achieved.

- 1) Lowering speed limit on superhighways from 100 to 80 kilometers per hour.
- 2) Introduction of "Summer Time" [Daylight Saving Time].
- 3) Guidance leading to blacking out post-midnight television broadcasts.
- 4) Set a "Conserve Energy Day" on a quarterly or monthly basis and call on the people to cooperate fully.

Effectiveness of Oil Conservation Program (Estimated)

Assuming that the proposed program is strictly observed, reduction in oil consumption will be as shown in the table below.

Description

Conservation Measure	Annual Saving in Oil Usage
1. General Conservation Measures	
1) Adjusting thermostat (heating)	About 8.1 kl (About 6.1 kl)
2) Adjusting thermostat (cooling)	About 130
3) 20 percent reduction in use of company (public office) cars	50
4) One-third reduction in illumination (primarily window area)	80
5) 20 percent reduction in elevator operations	10

- | | |
|---|-----|
| 6) Shutting off copiers when not in use | 5 |
| 7) Restraints in use of private cars | 200 |
| 8) Observance of economy speeds | 15 |

2. Conservation Measures in Production Sector

- | | |
|---|------------------------|
| 1) Fuel conversion in electric power industry | Over 400
(Over 300) |
| 2) Rationalization of energy consumption and fuel conversions in other industries | Over 300
(Over 100) |

Total

About 20
million kl
(About 15
million kl)

Note: Estimated reduction in oil consumption under the 5 percent conservation program in parentheses; figures not accompanied by figures in parentheses are estimated savings common to both programs.

Contents of 5 Percent Oil Consumption Reduction Program Currently in Effect

(Underscored items are those which are being reinforced under the new program)

General Conservation Measures

1) Government ministries and agencies and private sector offices, businesses and services such as department stores, supermarkets, hotels, inns, and cinemas will consider ways and means of best implementing the following measures:

a) Keep temperatures at no less than 28 degrees in the summertime; at the same time, reduce the span of artificial cooling period compared to the norm and encourage personnel to wear light clothing. Adjust heating system thermostats to a maximum of 19 degrees in the wintertime.

b) Reduce use of company (official) cars and elevators by 20 percent. Reduce by one-third, artificial illumination, particularly in areas adjacent to windows.

c) Reduce or abolish street lights to the extent of maintaining traffic safety and crime prevention.

- d) Conduct quarterly surveys of actual consumption by major users (fiscal 1979).
- 2) Consider following measures involving private householders and private car users:
 - a) Adjust heating and cooling thermostats and fastidiously extinguish all unneeded lights.
 - b) Exercise restraint in using private automobiles to commute to work or school and to shop.
 - c) Strictly observe economy speeds (80 kilometer/hour on superhighways) and exercise restraint in using superhighways on holidays.
 - d) Reduce TV viewing time span and diligently extinguish heating and cooling appliances and lights.
- 3) Consider the following public relations measures:
 - a) Treatment announcements on the subject as "important notices" in government information reports and give them maximum dissemination through printed and TV media.
 - b) Publicize through Japan Roads Foundation to reach private automobile drivers.
 - c) Reach householders through the Emergency Conservation Center (Finance Ministry).
- 4) Measures aimed at better comprehension of objectives:
 - a) Broad dissemination through MITI minister and others meeting with major industrial groups to obtain cooperation.
 - b) Using data obtained by surveys of overall conservation measures, various ministries and agencies will offer guidance and means of coping with the situation.
 - c) Offer educational guidance through schools.
 - d) Electric power companies and gas companies will use meter readers to further familiarize general householders with the measures being promoted, and the administrative officers will do the same where buildings are involved.

Conservation Measures Involving Production Sector

- 1) In the electric power industry, offer guidance on fuel conversion.
- 2) In other industries, offer guidance on fuel conversion and promote rationalization of energy usage.

Other Measures

- 1) The various ministries and agencies will call on those who are concerned to voluntarily increase their efforts to comply with guidance already given.
 - a) Popular amusement businesses and late night eating and drinking places will strictly adhere to established closing hours.
 - b) Move up closing hours of cinemas and related businesses.
 - c) Move up closing hours of golf practice ranges and bowling alleys.
 - d) Promote car-pooling and taxi sharing.
- 2) Concerned ministries and agencies will consider the following measures:
 - a) Delay opening movie theaters until after noon.
 - b) Promote energy conservation in outdoor entertainments and restrain new supports for cold weather area enterprises.
 - c) Strongly encourage gasoline stations to take days off and be closed for business.
 - d) Strongly urge shortening the period of illuminating advertising and decorative lights.
 - e) Discourage excessive heating and cooling of transportation vehicles.
 - f) Promote voluntary restraints against late night TV broadcasting.
 - g) Urge a 5-day week and broaden the practice of simultaneous summer vacations in the civil work sector.
 - h) To the extent that it does not conflict with traffic safety and crime prevention, reduce superhighway illumination by one-half and in other ways offer guidance to highway controllers to reduce or extinguish lights.
- 3) Take a further look at feasibility of simultaneous summer vacations and changing to daylight saving time.

Promotion of People's Voluntary Activity

- 1) Promote the measures listed below through assemblages and mass meetings to heighten conservation consciousness and activities of the people on a voluntary basis:
 - a) Nationwide people's mass meetings
 - b) Prevail on concerned businesses, groups, and local governing organizations to cooperate.
 - c) Solicit essays, drawings by children, and new ideas on the subject of energy conservation.
- 2) Plan to support regional people's movements for energy conservation promotion committees.

Promote Rapid Dissemination Channels

Promote rapid and accurate dissemination of information on concrete ways to conserve energy through means listed below:

- 1) Governmental Promotions
 - a) Increase promotional activity by government use of newspapers, stickers and public conveyance posters.
 - b) Educational guidance at the time of driving license renewals.
 - c) Distribution of informational propaganda pamphlets at Life of Tomorrow exhibit.
 - d) Request cooperation of education commission.
 - e) Offer guidance to those in the farming, forestry, and fishing businesses.
 - f) Disseminate information to those in medium to small businesses.
 - g) Urge electric power companies to carry out reminder campaigns to all homes and building operators.
 - h) Distribute stickers encouraging use of public transportation facilities.
 - i) Request news media to cooperate in the campaign

2) Civil Sector Promotions

a) Use Energy Conservation Centers (Finance Ministry) to Disseminate information.

b) Composition and distribution of paste-up news posters on walls by the New Life Movement Association (Finance Ministry).

8358

CSO: 4105

ECONOMIC

GOVERNMENT PANEL URGES STRONGER ROLE IN WORLD TRADE

OW171225 Tokyo KYODO in English 1218 GMT 17 Mar 80 OW

[Text] Tokyo, 17 Mar, KYODO--A government advisory panel suggested Monday that Japan's basic international trade and industrial policies in the 1980s should seek to make a greater contribution to the world while ensuring domestic security to meet an unstable world situation in the future.

The industrial structure council in its recommendations to Minister of International Trade and Industry Yoshitake Sasaki said Japan has grown to become one of the world's major economic powers contributing to 10 percent portion of the world economy.

It said, therefore, that one of three national targets for the 1980s must be to establish Japan's contribution to world stability. It also said that Japan needs to overcome her shortage of energy resources by developing alternative energy sources and seek more sophisticated techniques in order to survive. But, at the same time, as a fully industrialized nation, Japan must seek a higher quality of life such as enforcement of a 5-day workweek.

The panel also said that Japan must cooperate with other countries through expansion of trade while reducing trade frictions as well as seeking smooth communications.

Japan's contribution to the development of the Pacific community in the 1980s would be another task for this country, the panel said.

CSO: 4120

ECONOMIC

GREAT DEMAND FOR AIRCRAFT EXPECTED OVER NEXT 15 YEARS

Tokyo JPE AVIATION REPORT-WEEKLY in English 5 Mar 80 pp 2-3

[Text]

The Nomura Research Institute, a leading Japanese think tank, forecasts world demand for aircraft will rise sharply in 15 years from 1985.

In a report issued Feb. 19, it says any sharp development of the Japanese aircraft industry would depend on whether it would be able to participate in an enlarged world aircraft market in the years.

Explaining the forecast, the institute says air travellers will increase at an annual rate of around 8 percent in the period while aircraft will become outmoded at a quicker pace. Furthermore, rising energy costs and environmental regulations will increase demand for more economical aircraft with more efficient engines, it adds.

The Ministry of International Trade and Industry projects world demand for new passenger jets in the 15 years at 7,000 aircraft--1,700 of 500-seat super-capacity aircraft including Boeing 747s, 2,300 of 200-to-250-seat aircraft like Boeing 767s and Airbus Industrie A300s and A310s, 1,400 of such 150-seat aircraft as Boeing 727s, and 1,700 of 100-seat feeder airliners like Boeing 737s.

The Japanese aircraft industry has a 15 percent share in production of Boeing 767s and is about to develop the 150-seat Y-XX passenger jet in cooperation with foreign firms.

In addition to civil aircraft, demand for fighters and other military aircraft is growing in Western Europe and the United States amid rising tension between the United States and the Soviet Union, the report said.

The active demand for civil and military aircraft has forced U.S. manufacturers concerned to operate above capacity. As a result, the American aircraft manufacturers are increasingly placing orders for aircraft materials and manufacturing tools with Japanese manufacturers who can afford to increase production of rolled aluminum and titanium sheets, machine tools, hydraulic machines and other products concerned, the report added.

CSO: 4120

ECONOMIC

BOEING 767 CONTRACTS BOOSTING AIRCRAFT PARTS EXPORT

Tokyo JPE AVIATION REPORT-WEEKLY in English 5 Mar 80 pp 3-4

[Text]

Japanese aircraft industry received orders during 1979 related to the Boeing 767 production program which will double annual aircraft parts export from an average ¥2,000 million to ¥5,000 million beginning in FY 1980. An increase in export sales is expected to continue for the next three or four years. Inquiries are also being received from US and European aircraft manufacturers for supply of processed material, parts, and machine tools reflecting a worldwide shortage of parts suppliers for commercial aircraft programs brought about by priorities given to military programs.

The Boeing 767 joint development and production program, which began in October 1978, is entering a new phase with fabrication of prototypes in August this year. Under a contract between Boeing Commercial Airplane Co. and the Civil Transport Development Corp. (CTDC), a consortium of Japanese airframe manufacturers, Japan has been given a 15 percent work share in the program. CTDC supplies fuselages, wing fairings and doors. In addition, Japanese parts suppliers have received orders for other parts and components related to the Boeing program.

Teijin Seiki was the first to receive a large order from Boeing. It received an order in February 1979 worth ¥3,000 million for supply of power-control actuators for 300 units of the 767. New Japan Aircraft Maintenance (Shin Nihon Kokuseibi) received the biggest single order for 767 interior equipment worth ¥5,000 million. It will also supply lavatories for 300 units of the 767. Major contracts concluded last year follow:

<u>Item</u>	<u>Japanese supplier</u>	<u>Contract Amount</u>
Power-control actuator	Teijin Seiki	¥3,000 M
Gear housings	Shimadzu Seisakusho	¥900 M
Hydraulic equipment	Kayaba Industry	¥1,000 M
Landing gear parts	Sumitomo Precision Products	¥130 M
Lavatories	New Japan Aircraft Maintenance	¥5,000 M
Reading lights	Koito Manufacturing Co.	¥400 M
Main wing ribs	Japan Aircraft Mfg.	¥2,800 M
Metal joints	Shin Meiwa Industry	¥1,800 M

Further orders from Boeing are expected for metal materials. Kobe Steel, Sumitomo Light Metal Industries, and Furukawa Aluminum will supply aluminum. Special steel will be supplied by Kobe Steel, Hitachi Metals, and Daido Steel. Toray Industries and Yokohama Rubber will supply carbon composite materials.

With orders related to the Boeing 747 and 757 airliners under negotiation and inquiries from European manufacturers on forged materials for aero engines and parts for aircraft, the Japanese aircraft industry, that has been 85 percent dependent on orders from the military has now secured a sizable share in the international civil aircraft market as parts suppliers.

CSO: 4120

ECONOMIC

KHI EXPANDING ITS SHARE IN ENGINE INDUSTRY

Tokyo JPE AVIATION REPORT-WEEKLY in English 5 Mar 80 pp 4-5

[Text]

Kawasaki Heavy Industries (KHI) received a number of aero engine contracts during FY 1979, considerably expanding its market share in the foreseeable future.

The Japanese aero engine industry has long been dominated by Ishikawajima-Harima Heavy Industries (IHI) while KHI and Mitsubishi Heavy Industries (MHI) together managed to occupy about 20 percent. In FY 1978, IHI earned ¥40,000 million against ¥7,700 million of KHI and ¥3,300 million of MHI.

KHI in FY 1979 started efforts to expand activities of its aircraft and aero engine manufacturing divisions in order to achieve more sales than its shipbuilding division. The BK117 helicopter program, launched in collaboration with MBB of West Germany, was promoted successfully during 1979 with options totalling 57 units at the year-end. In the area of aero engines, KHI holds a 25 percent of the Japanese work share in the XJB/RB432 joint development program. IHI obtained 60 percent and MHI 15 percent respectively. This will assure KHI opportunities to expand its engine activities in the future.

In addition to the XJB/RB432 program, KHI is now in the RB211 program. The company received a trial order from Rolls-Royce for turbine disk components of the RB211 engine last year. The company at present is reportedly in final negotiations with Rolls-Royce for low-pressure turbine components for the RR211-524 engine. Orders are expected to amount ¥6,000 million annually over the next few years, according to Japanese sources.

KHI has been enlarging its Akashi Engine Plant since last year at a cost of ¥2,000 million. In FY 1980 a further ¥3,000 million will be invested to modernize facilities to meet orders expected from the British company.

Turnover related to aero engines for FY 1979 ending March 31 this year are estimated at ¥33,600 million for IHI, ¥9,100 million for KHI, and ¥10,000 million for MHI.

CSO: 4120

ECONOMIC

SUMITOMO EYEING LANDING GEAR MARKET IN U.S.

Tokyo JPE AVIATION REPORT-WEEKLY in English 5 Mar 80 p 6

[Text]

Sumitomo Precision Co. plans to promote export of landing gear for small and medium class aircraft to the U.S.

It will act as a subcontractor of Menasco Inc. and Cleveland Pneumatic Co. (CVC), both American landing gear makers having technical cooperation contracts with the Japanese firm, for the immediate future and then gradually increase production of landing gear for civil aircraft, industry sources say.

Sumitomo Precision received a \$1.3 million order from Menasco late last year for front gear components for Boeing 767s and main gear parts for twin-engine business jets. It has started production for delivery beginning in June. Following this, the firm wants to strengthen relations with Menasco for expansion of subcontracting contracts. It is also considering setting up similar subcontracting relations with CVC.

The company has so far supplied primarily the Defense Agency with landing gear for military aircraft. Although it has produced landing gear for YS-11 passenger planes and C-1 transports, it has had little experience in manufacturing for larger aircraft. Therefore, its exports to the United States are designed to center mainly on landing gear for small and medium aircraft.

The firm's sales in FY 1979 ending in March 1980 are expected to rise about 6 percent over the previous fiscal year to about ¥18,000 million, of which aircraft components will account for more than 50 percent. Out of its aircraft component sales, however, those for civil aircraft will occupy less than 10 percent.

By promoting exports to the United States, it intends to expand sales of civil aircraft landing gear.

ECONOMIC

'YOMIURI': MEASURES TO DEFEND YEN UNLIKELY TO HALT TREND

OW101147 Tokyo THE DAILY YOMIURI in English 7 Mar 80 p 5 OW

[Article by Mikio Kuwamori]

[Text] Japan's monetary authorities on 2 March announced a plan to defend the yen through joint efforts by Japan and the U.S. but Japanese financial circles doubt that the plan will prove effective.

The announcement of the plan was made in an unusual manner, on a Sunday night, Finance Minister Noboru Takeshita and Bank of Japan Governor Haruo Maekawa called separate emergency press conferences. This is a measure of the importance attached to the plan.

Maekawa said it was not enough to deal with the issue in a businesslike manner, wishing that the step would produce as great an effect as possible.

But not all international monetary sources reacted favorably to the announcement. Most of them say that the measure to introduce foreign capital is not expected to have an immediate effect and that it remains to be seen how co-operative intervention in the foreign exchange market by Japan and the U.S. will be carried out.

Few people think that the step will help the yen to rally so much that it will be regarded as overvalued. Most people view the action as useful only for gaining time. Some people even think that the step will not curb the fall of the yen.

In fact, the Bank of Japan only managed to prevent the yen from falling below yen 250 to the dollar by buying a large amount of dollars on 3 March, the day after the announcement.

Experts on international monetary affairs cite three reasons for the low value of the yen. The major one is the deficit in Japan's international balance of payments.

The Bank of Japan first expected that the deficit in Japan's current account balance would reach its peak between October and December 1979, but the peak is now likely to come considerably later.

Last year, the current account deficit increased in every three-month term and reached \$3.5 billion in the October-December period.

According to a recent estimate by the Sumitomo Bank, the deficit will be \$5.3 billion in the January-March period this year and \$4 billion in the April-June period.

According to an estimate by the Mitsubishi Bank, the deficit will be \$7 billion in the January-March period and \$8-9 billion in the April-June period.

The greatest cause of the increasing deficit is of course the soaring price of crude oil. In November last year, private economic institutes expected that the crude oil price would be about \$26 per barrel, but the import price of crude oil turned out to be \$29.20 in January this year.

Every time the crude oil price increases by \$1, the amount of money that Japan pays to import oil increases by \$2 billion.

Another reason of the low value of the yen is the rapid increase in wholesale prices, which is expected to continue at least through March.

The other reason is the high interest rates in the U.S.

At his press conference, Maekawa said: "You should say the dollar is strong, rather than that the yen is weak. The reason why the dollar is strong despite the unfavorable international balance of payments of the U.S. is that U.S. interest rates are high."

It will be some time before the causes of the yen's low value are eased. The recent step to defend the yen should be regarded as aimed at gaining time.

CSO: 4120

ECONOMIC

ASAHI TO USE AEROSPATIALE PUMA FOR OFFSHORE OPERATIONS

Tokyo JPE AVIATION REPORT-WEEKLY in English 12 Mar 80 p 2

[Text]

Asahi Helicopter Co. will use the Aerospatiale SA330J Puma helicopter for Japan-South Korea joint oil exploration on the continental shelf between the two countries.

It has already concluded a contract with Korean Airlines (KAL) for joint operation of helicopters in oil exploration use.

The Puma, a 13-seat, twin-turbine helicopter mainly used for transporting personnel, is equipped with automatic flight control, weather radar, Omega navigation, radio altimeter and HF radio systems as well as additional fuel tanks and floats to ensure safety in long-range offshore flights. Asahi Helicopter has two helicopters of this type.

Helicopters have become indispensable transport for offshore oil exploration. Asahi Helicopter has monopolized using helicopters to assist offshore oil drilling rigs and platforms in Japan since this country started offshore oil exploration.

Japan's full-scale use of helicopters for that purpose began in December 1971 when the 13-seat, twin-turbine Bell 212 was introduced. Since then, Asahi Helicopter's offshore flight time has reached 5,000 hours with a total of more than 81,000 persons transported to and from offshore exploration sites.

During the past 10 years, Asahi Helicopter has sharply increased its helicopter fleet and advanced offshore flying techniques. At present, it has eight Bell 212s and one MBB BO-105C as well as two Pumas for offshore operations. It will also acquire a 25-seat Soviet MIL-8 helicopter in early April.

CSO: 4120

ECONOMIC

SJAC SURVEY MISSION TO VISIT EUROPE IN APRIL

Tokyo JPE AVIATION REPORT-WEEKLY in English 12 Mar 80 p 3

[Text]

The Society of Japanese Aerospace Companies (SJAC) has decided to send a survey mission to Europe during the period April 6 through 21 to "obtain first-hand information on the status of activities and development projects in the European aircraft industry." The mission will be led by Eiichi Ohara, SJAC Chairman. He will be accompanied by twelve members, two advisers, two observers, and five specialists, representing SJAC member companies as well as government, financial, and airline circles. The mission's itinerary follows:

April 6: Depart Narita; April 7: Arrive at Amsterdam;
April 8: Visits to Dutch government offices (in the morning) and the Fokker head office and plant (in the afternoon);
April 9: Visits to Fokker's head office and plant; April 10: Visit to VFW Bremen plant; April 11: Visit to MBB Hamburg plant; April 12 and 13: Holidays; April 14: Visit to Airbus Industrie's head office and plant at Toulouse; April 15: Holiday; April 16: The mission divides into three groups. Group A visits SNECMA plant, Group B visits French government offices and Group C Aeritalia's plant at Torino; April 17: Group A visits the Watbridge or Hatfield plant of British Aerospace, Group B visits British government offices and Rolls-Royce's head office, and Group C visits the Aeritalia plant at Napoli(Naples); April 18: Group A visits BAe's Chester plant, Group B visits Rolls-Royce's Derby plant, and Group C the CASA plant in Spain; April 19: Groups A and B leave London for Narita while Group C leaves Madrid for Paris; April 20: Groups A and B arrive at Narita while Group C leaves Paris; April 21: Group C arrives at Narita.

Although some advocated views during the Policies Subcommittee meeting February 28 for the mission to get down to details in talks on aircraft proposals from Airbus Industrie and Fokker during its tour of Europe, SJAC expressed that this was not the purpose of the mission. According to MITI, the SJAC mission is being sent to study the current status of the European aircraft industry to contribute to realistic studies on the Y-XX project covering selection of partners, risks, and various proposals from European manufacturers.

CSO: 4120

ECONOMIC

RJ500 ENGINE JUDGED AVAILABLE FOR Y-XX

Tokyo JPE AVIATION REPORT-WEEKLY in English 12 Mar 80 p 4

[Text]

The Rolls-Royce/Japan RJ500 joint development program was judged timely for the Y-XX new short-to-medium range jetliner program Japan plans to undertake through international collaboration, at the 5th meeting of the Policies Subcommittee, Aircraft Industry Division, Aircraft and Machinery Industry Council, an advisory body of MITI, February 28.

In response to a question from MITI, the subcommittee asserted that the Anglo-Japanese aero engine would be certified in 1985 to be followed by in-service flight testing for about two years, while proposed Y-XX's such as the Fokker F29 would also be certified in 1985.

A government subsidy to be included in the FY 1981 draft budget for the Y-XX plan was discussed at the same meeting. MITI expressed doubt the industry could decide on a final plan in time for a start in FY 1981, while airline circles voiced hopes for early launching of a new jetliner project with accommodations for about 130 passengers to replace the Nihon YS-11 turboprop 60-64 passenger transport.

CSO: 4120

ECONOMIC

BOEING TO USE TORAY CARBON FIBER MATERIAL FOR 757/767

Tokyo JPE AVIATION REPORT-WEEKLY in English 12 Mar 80 pp 4-5

[Text]

Boeing Commercial Airplane Co. has decided to use carbon fiber material of Toray Industries for the wings of the Boeing 757 and 767 aircraft, sources report. Boeing is said planning to use the same material for the 747 and other Boeing jetliners eventually, providing great demand for the carbon fiber material developed by the Japanese firm.

Applications of the Toray material were developed jointly with Union Carbide and marketing started in 1971. At present about 30 tons are being produced monthly, 60 to 70 percent of which is exported. But, applications have been limited to sporting goods such as golf clubs or tennis rackets although some manufacturers have been testing the material in automobile and military aircraft parts.

Boeing's decision is expected to widen the market for the Toray material and the Japanese company has decided to step up construction of a production plant at Union Carbide facility in South Carolina. It will become operative as a UCC production plant in 1982 with initial monthly output of 30 tons. The plant will be expanded as demand grows, with current plans calling for a monthly output of 300 tons by 1987.

Toray will continue to produce the carbon fiber material for export, while providing technical assistance to UCC.

CSO: 4120

ECONOMIC

SILICON CARBIDE FIBER TO BE DEVELOPED FOR AIRCRAFT

Tokyo JPE AVIATION REPORT-WEEKLY in English 12 Mar 80 p 3

[Text]

The Research Development Corporation of Japan has assigned Nippon Carbon Co. to develop a process for making silicon carbide fiber from polycarbon silicon. The fiber will be used for reinforcing composite metal materials for aircraft and space exploration equipment.

The three-year project will cost more than ¥900 million, of which the corporation will put up ¥689.6 million and Nippon Carbon about ¥210 million. According to the company's plan, silicon carbide fiber production under the process three years later would be one ton a month at a price of about ¥100,000 per kilogram. However, the price would be reduced to ¥20,000 per kilogram, if the fiber is extensively used.

At present, research and development are under way of such inorganic fibers as carbide and boride. Composites of these fibers and plastics or light metals can be used as light and reinforced materials for aircraft and space equipment. Furthermore, mixtures of the fibers and nickel, heat-resisting alloys or ceramics may be useful in gas turbines, magnetohydrodynamic (MHD) power generators and multi-purpose hot gas producers. Although carbide-fiber reinforced materials have already been developed, today's materials react to high temperature and tend to oxidize. In order to eliminate this, method to coat the materials with boron and silicon carbide, which can resist heat and oxidization are being studied. If a long fiber with a good mechanical performance is made from the silicon carbide, it could be widely used. However, it is not possible to make long fibers now.

The process to be developed by Nippon Carbon was discovered by Tohoku University.

ECONOMIC

FIRST NAVAL GAS TURBINES COMPLETED AT KHI

Tokyo JPE AVIATION REPORT-WEEKLY in English 12 Mar 80 pp 5-6

[Text]

Kawasaki Heavy Industries Ltd. (KHI) unveiled March 5 at its Kobe plant Japan's first gas turbine engines for the Maritime Self-Defense Force's 2,900-ton DD type destroyer, ordered by the Japanese Defense Agency in FY 1977. Production is also under way at Kobe for the gas turbine powerplant of the second DD funded in FY 1978. An additional contract is expected to be awarded to KHI very soon for the construction of gas turbine engines for a DE escort destroyer and three DDs authorized in the FY 1979 funding.

KHI is also considering introducing the Rolls-Royce SM1A Spey (13,500 hp) which will be suitable for larger warships of the future. A combination of the three engines will make possible greater applications, KHI said.

The COGOG (combined gas turbines or gas turbines) powerplant of the MSDF's DD consists of two TM3B Olympus engines, each producing 22,500 hp, for high speed operations, two RM1C Tynees, each producing 4,620 hp, for cruising, and engine control systems. The DE is equipped with a COGOG powerplant, consisting of one TM3B Olympus for high speed operations and one 4,650-hp diesel engine for cruising, as well as engine control systems.

The gas turbine engines for the Japanese warships were produced under a licensing agreement signed by KHI and Rolls-Royce in 1971.

CSO: 4120

ECONOMIC

BRIEFS

MEDICAL TEAM IN PRC--Tokyo, 5 Mar--Japan is to send a seven-member survey team to Beijing 7-15 March for talks with Chinese officials on ways of promoting technical cooperation with China in the areas of health and medical care, the foreign ministry announced Wednesday. The mission to be headed by Toshiaki Tanabe, director of the second technical cooperation division, economic cooperation bureau, of the foreign ministry, is to visit China at the request of the Chinese Government. The mission members will also visit medical care facilities in Beijing. The government-level technical cooperation between Japan and China in health and medical care was started in fiscal 1979. The Japanese Government is expected to accept 10 Chinese trainees in the current fiscal year ending 31 March. [Text] [OW050951 Tokyo KYODO in English 0715 GMT 5 Mar 80 OW]

GRANT TO INDONESIA--Tokyo, 4 Mar--Japan and Indonesia exchanged notes Monday calling for Japan to provide Indonesia with yen 1,700 million worth of agricultural material, the foreign ministry announced Tuesday. It said the notes on Japan's grant aid to Indonesia were exchanged in Jakarta between Japanese Ambassador Masao Sawaki and G. Roesli Noor, director general of the foreign economic, social and cultural relations of the Indonesian Foreign Ministry. [Text] [Tokyo KYODO in English 0138 GMT 4 Mar 80 OW]

KUWAIT CONSTRUCTION CONTRACT--Tokyo, 5 Mar--JCC Corp. and Mitsui and Co. said Wednesday they have jointly signed a contract with Kuwait to construct oil pipelines and storage tanks. The yen 7 billion (\$28 million) contract was awarded by Kuwait Oil Company, a state-run firm. The contract, full turnkey, calls for constructing two pipelines to connect a refinery in Mina-al Ahmadi with a power station in Doha. The Japanese firms will also build 5 fuel oil tanks with storage capacity of 400,000 barrels each and a water tank for fire fighting. Delivery will be made by August 1981, the two companies said. [Text] [Tokyo KYODO in English 0547 GMT 5 Mar 80 OW]

ALGERIAN MEDIA EXCHANGE--Tokyo, 6 Mar--Nourad Ben Cheikh, newly accredited Algerian Ambassador to Japan, paid a courtesy call on Takeji Watanabe, president of the KYODO News Service, Thursday. Ben Cheikh, who succeeded Brahim Chafa last December, discussed issues related to the promotion of exchanges between the Algerian and Japanese mass media during his 30-minute visit to KYODO. [Text] [OW061307 Tokyo KYODO in English 0640 GMT 6 Mar 80 OW]

BOHAI OIL SURVEY TEAMS--Tokyo, 5 Mar--Idemitsu Kosan Co. and Japan Petroleum Exploration Co. will send a joint team to survey on-shore oil fields near Bohai Bay in northern China in March or later, industry sources said Wednesday. Consisting of six or seven geological and geophysical specialists, the group plans to collect data on the Dagang oil fields from the Chinese side during a visit of 2 weeks or more. The sources said China is seeking Japanese cooperation to develop a deeper part of the fields with annual production capacity of 3 million tons, the third largest in China. The wells are 2,000 meters deep but light crude has been found at depths of 3,200 to 4,000 meters and natural gas at greater depths, the sources added. [Text] [Tokyo KYODO in English 1116 GMT 5 Mar 80 OW]

GOVERNMENT-GUARANTEED BONDS--Tokyo, 8 Mar--The Finance Ministry has decided to boost the coupon rate on government-guaranteed bonds and local bonds for public subscriptions by 0.3 to 8.1 percent per annum effective from March issues. The decision was made to bring it in line with other long-term interests rates, which have risen following the Central Bank's official discount rate hike last month, ministry officials said. The issue price of such 10-year bonds will be left unchanged at 99.75 yen against the par value of 100 yen for government-guaranteed bonds and at 99.30 yen for local bonds. Therefore, the yields to subscribers will rise to 8.143 percent and 8.190 percent, respectively, they added. [Text] [OW081615 Tokyo KYODO in English 0140 GMT 8 Mar 80 OW]

STORES IN BEIJING--Beijing, 8 Mar--A major Japanese watchmaker will open a store in Beijing's Wangfujing Street Monday which will not only feature timepieces but also facade designed in Japanese style with a tent cloth at the entrance and a folding shutter. It contrasts sharply with dimly lighted Chinese shops. The "exotic" store is drawing crowds of curious pedestrians well in advance of its opening day. A Japanese automaker also will open a service center in Beijing in May. In addition, a section set aside for Japanese products will be established shortly in department stores in Beijing. Two Japanese household electric appliance makers already have put up eye-catching signboards and displays on Peking's main street. [Text] [Tokyo KYODO in English 0009 GMT 8 Mar 80 OW]

LIQUEFIED NATURAL GAS IMPORTS--Tokyo, 8 Mar--Tokyo Electric Power Co. announced Saturday it has contracted with Pertamina to import some 330,000 tons of liquefied natural gas from the Indonesian state-run oil company in 1980. The delivery of 110,000 tons of LNG out of the total amount contracted will be made by the end of this month, and the remaining 220,000 tons in and after April, the announcement said. The Indonesian Oil Company agreed to offer additional LNG to the Japanese firm as it acquired surplus energy supply capability, it added. The Tokyo Electric Power Co., in partnership with the Tohoku Electric Power Co., based in Sendai, northern Japan, is now negotiating with Pertamina for 1.5 million ton LNG deal in 1983. [Text] [Tokyo KYODO in English 0904 GMT 8 Mar 80 OW]

AIR ACCORD WITH FIJI--Tokyo, 10 Mar--Japan and Fiji have concluded an aviation agreement granting each other's flag carriers to open air services between the two countries, the foreign ministry announced Monday. The agreement was signed Monday in Suva by Japanese Ambassador Hiroshi Otaka and T. R. Vakatora, minister of tourism, transport and civil aviation of Fiji. [Text] [OW101205 Tokyo KYODO in English 0849 GMT 10 Mar 80 OW]

AID GRANT TO NEPAL--Tokyo, 10 Mar--Japan has decided to give about yen 60 million in grant aid to Nepal for the economic development and improvement of the people's welfare in that country, the foreign ministry said Monday. Notes on the grant aid of yen 59,829,000 were exchanged between Minsao Tsuchiya, Japanese ambassador to Nepal, and Gorakshaya Bahadur Bhuchhe Prdhan, secretary of the Nepalese Finance Ministry, in Katmandu Sunday. The aid will be extended in accordance with a resolution adopted at the Ninth Ministerial Conference of the Trade and Development Board (TDB) of the United Nations Conference on Trade and Development (UNCTAD) in March 1978 concerning development aid by developed countries to developing nations. The sum will be used to buy products (oil products, cement, steel bars, fertilizers) necessary for the economic development and improvement of the people's welfare in Nepal. The aid is part of the grant aid Japan has decided to extend in view of the resolution and with a view to promoting friendly and cooperative relations between Japan and developing countries. [Text] [Tokyo KYODO in English 0417 GMT 10 Mar 80 OW]

AID GRANT TO SUDAN--Tokyo, 10 Mar--The government has extended a grant aid of yen 52,396,000 to the Sudanese Government to help it purchase goods and services necessary for economic development and bring about improvement of the welfare of the Sudanese people, the foreign ministry announced Monday. The sum will be disbursed from the economic development aid fund of fiscal 1979 brought forward from the fiscal 1978 budget, the announcement said. Notes on the grant aid were exchanged in Khartoum Sunday between Japanese Ambassador Fumio Hirano and Salah Ahmad, acting undersecretary for foreign affairs of Sudan, it said. The government has offered the aid to Sudan in accordance with a resolution adopted at the Ninth Ministerial Conference of Trade and Development Board (TDB) of the U.N. Conference on Trade and Development (UNCTAD) in March 1978, the announcement said. The TDB resolution calls upon developed countries to take steps to soften the terms and conditions for official development aids (ODA) extended to developing countries. [Text] [Tokyo KYODO in English 0542 GMT 10 Mar 80 OW]

HELICOPTERS FOR OIL EXPLORATION--Toa Domestic Airlines (TDA) has decided to lease two Sikorsky S-76 helicopters from Air Logistics, an American firm, for support operations in ROK-Japanese joint efforts to explore offshore oil fields in the continental shelf. The helicopter will be used for transport of personnel and supplies between offshore platforms and land bases. TDA expects that the company will be selected soon by Nippon Oil Co. to provide logistical support. Start of the offshore exploration was originally scheduled for August 1979 but has been delayed. It is now expected to start in May or June. [Text] [Tokyo JPE AVIATION REPORT-WEEKLY in English 12 Mar 80 pp 2-3]

ENGINE CALLED 'RJ500'--The Japanese aero engine industry and Rolls-Royce Limited of the United Kingdom have agreed to call the new aero engine projected for joint development "RJ500," R stands for Rolls-Royce and J for Japan. Designed to produce a maximum takeoff thrust of approximately nine tons, the RJ500 will be a high by-pass ratio turbofan, featuring low noise, low fuel consumption and less air pollution. Full start of the engine development program is expected around the middle of this year, preceded by market surveys, basic designing and other development work which will be promoted jointly by the British and the Japanese partner companies. [Text] [Tokyo JPE AVIATION REPORT-WEEKLY in English 5 Mar 80 p 5]

RAILROAD STATION LINKS--Tokyo, 11 Mar--Tokyo's Ueno Station and China's Beijing Station will conclude friendly ties for exchange of station officials, it was decided Tuesday. Ueno Station is the first Japanese National Railways (JNR) station to conclude friendly ties with a foreign station. The idea of establishing "friendship station" ties was realized after China presented giant panda Huan Huan (Delight) to Tokyo's Ueno Zoo. JNR will invite six Beijing station officials, including stationmaster Shi Cuijian, to Tokyo in commemoration of the conclusion of friendship station ties. After coming to Japan next Tuesday, the Chinese guests will attend an opening ceremony for a 12-day exhibition of Chinese railway photos opening at Ueno Station on 20 March. The Chinese will also inspect Ueno and Ikebukuro stations in Tokyo and the Shinkansen bullet train general command center. Japanese officials, including the Ueno and Tokyo stationmasters, will visit Beijing station around May or June at China's invitation. JNR will also put on sale on 20 March 200,000 platform tickets in commemoration of the exchange of friendship between Ueno and Beijing stations. [Text] [OW120535 Tokyo KYODO in English 1243 GMT 11 Mar 80 OW]

TAIWAN JOINT VENTURE BID--Nagoya, 12 Mar--Japan's Toyoto Motor Co. announced Wednesday a decision to bid for Taiwan's governmental project to produce passenger cars there in a joint venture with a foreign automobile maker. Officials said Shinichi Kanda, vice president of Toyota Motor Sales Co., Toyota's sales arm, would visit Taipei early next week to convey the decision to the Taipei government. Nissan Motor Co., Japan's second largest automobile maker after Toyota, has already announced its willingness to bid for the project. The officials said Taiwan would be the 17th country where Toyota embarks on local assembling of its cars, if it is picked for the project by the Taiwan authorities. [Text] [OW120535 Tokyo KYODO in English 0424 GMT 12 Mar 80 OW]

INTERNATIONAL CATERING EQUIPMENT SHOW--Osaka, 12 Mar--An international food engineering show will be held here for a week starting 27 March. The first Japan International Food Engineering Show, sponsored by the Osaka International Trade Fair will be participated in by 350 firms from 10 countries, including Japan, the United States, West Germany and France. Many up-to-date equipments, such as automatic rice cookers with minicomputers will be exhibited at the show. [Text] [OW120535 Tokyo KYODO in English 0151 GMT 12 Mar 80 OW]

SCIENCE AND TECHNOLOGY

TR&DI PLANS DEVELOPMENT OF NEW SAM IN FY 1981

Tokyo JPE AVIATION REPORT-WEEKLY in English 5 Mar 80 p 8

[Text]

Following successful development of the Tan-SAM short-range surface-to-air missile for the GSDF, the TR&DI, JDA plans to start studies on its successor, the Tan-SAM II in FY 1981. Originally the TR&DI intended to place a research contract with funds from the FY 1980 budget but they were not authorized.

The Tan-SAM II will be an advanced weapon which will feature all-weather capability, a new target identification and tracking system which will enable the missile to attack different types of targets, increased ECCM (electronic counter countermeasure) capability, and be an effective detector of low-level infrared sources.

The Tan-SAM I passed functional tests in October last year and final analysis is under way for the new GSDF air defense missile system that will bridge gaps between the L-90 dual 35mm machine gun system and the Hawk SAM.

CSO: 4120

SCIENCE AND TECHNOLOGY

NEW MODEL 88 TANK OUTLINED

Tokyo JPE AVIATION REPORT-WEEKLY in English 5 Mar 80 p 9

[Text]

Japan's new main battle tank (MBT) to replace the Model 74 will feature the greatest striking power and the best maneuverability in the world with a 120mm smooth-bore gun and a maximum speed of 70 kilometers per hour, according to the Defense Agency's TR&DI which is developing the new MBT for the GSDF.

The TR&DI launched basic technical research into the new MBT, dubbed the Model 88, in FY 1977 with actual deployment planned for the second half of the 1980s. From the private sector, MHI and some other firms have participated in the MBT development project. In FY 1980 starting in April, the TR&DI will fabricate chassis, armor, gun and ammunition to collect technical data.

Total development cost for the new MBT during FY 1977 through 1986 is projected at nearly ¥20,000 million, far more than about ¥2,000 million for development of the Model 74. The TR&DI says such an amount is necessary for detailed research and fabrication to enlarge the tank and systematize its equipment.

The GSDF has acquired 48 of the Model 74 tanks yearly since 1974. Deployment of 60 new units is planned in FY 1980. The Model 74 features accurate attitude and fire control systems. In the field of fighting capability, however, it is said to be slightly inferior to Soviet tanks.

The Model 88 is designed to be superior to the Model 74. Its actual size and other weapons than the 120mm smooth-bore gun will be decided in view of future research.

SCIENCE AND TECHNOLOGY

FIRST SCOUT VEHICLE PLAN FOR FY 1981

Tokyo JPE AVIATION REPORT-WEEKLY in English 5 Mar 80 pp 9-10

[Text]

A full-scale development program for the first GSDF armored reconnaissance/scout wheeled vehicle is among plans of the TR&DI to start in FY 1981. Two prototypes of the three-axle six-wheel vehicle are currently under development along with another vehicle, the command/communications six-wheeler. The latter is intended for service with field artillery and other units while the former is for deployment with divisional reconnaissance units. Series production is planned for the latter.

Requirements for the recon./scout vehicle are more varied than those for the command/comm. vehicle since it should carry armament, a small radar system and night sighting equipment. A 20mm machine gun is eyed as main armament for the recon./scout vehicle.

It is expected that the TR&DI will conclude functional tests on the recon/scout vehicle prototypes during FY 1980 while the GSDF is finalizing operational requirements. The TR&DI is also promoting a research program for the GSDF on an advanced MICV (mechanized infantry combat vehicle), a tracked armored personnel carrier, that will operate with tanks and self-propelled guns.

CSO: 4120

SCIENCE AND TECHNOLOGY

DECISION OF NEW MEDIUM RANGE GUN DELAYED

Tokyo JPE AVIATION REPORT-WEEKLY in English 5 Mar 80 p 10

[Text]

The GSDF may delay selection of a new medium range gun for towed and self-propelled howitzers until FY 1980. Although it wants to complete selection work by the end of March 1980 or FY 1979, more time may be necessary for establishing license production.

However, the delay in selection will not affect the GSDF's plan to install the new howitzers during a FY 1980-84 period for the FY 1978 Medium-Term Defense Program (MTDP).

The GSDF is giving priority to modernization of weapons for artillery units, including the medium range guns, in the FY 1978 MTDP. Specifically, it plans to start deployment of new towed 155mm howitzers in FY 1984. As for modification of the Model 75 155mm HSP, it intends to purchase new guns in FY 1982 and carry out modification of components in FY 1984-85.

In studying foreign medium range guns meeting the GSDF's operational requirements, it sent a survey team abroad in FY 1978. Candidates under evaluation in FY 1979 before final selection are the FH-70 developed jointly by Britain, West Germany and Italy, the FH-77 of Sweden and the M-198 of the United States.

CSO: 4120

SCIENCE AND TECHNOLOGY

GSDF/TR&DI TO PROMOTE NEW ANTIMORTAR RADAR DEVELOPMENT

Tokyo JPE AVIATION REPORT-WEEKLY in English 12 Mar 80 p 9

[Text]

The GSDF/TR&DI will take positive action in FY 1981 for development of new antimortar radars because a budgetary request of about ¥550 million for that purpose for FY 1980 starting in April was disapproved. They believe any further delay should be avoided in development of the new radars to be in service in the decade beginning in 1985.

The current JMPQ-N1 antimortar radars have been deployed since the FY 1962-66 period (the 2nd Defense Buildup Program). About ¥400 million has been authorized for further deployment in FY 1980.

Considering past operational research into the current radars, the GSDF planned to develop two new types of anti-mortar radars--a self-propelled type and a towed model--from FY 1980. Although the GSDF/TR&DI wanted to carry out simultaneous fabrication of the two types in FY 1980, they only request funds for the towed model. However, even this request was disapproved. In order to offset the delay in FY 1980, they may seek funds for fabrication of both models in the FY 1981 budget.

In developing the new radars, the GSDF/TR&DI may consider adding new functions. They are expected to pursue expanded detection range, simultaneous detection of mortars, improved electronic counter-countermeasure (ECCM) capability and sufficient mobility.

The self-propelled type is designed to use the Model 60 armored personnel carrier (APC) chassis. Advanced technology would be necessary for mounting all systems of the radar on the chassis. The towed model may be put on a tractor-drawn trailer.

CSO: 4120

SCIENCE AND TECHNOLOGY

NEW GSDF FIELD SURVEILLANCE RADAR DEVELOPMENT

Tokyo JPE AVIATION REPORT-WEEKLY in English 12 Mar 80 pp 9-10

[Text]

The Field Surveillance Radar Mk I developed by the TRADI and the GSDF are to enter operational tests in FY 1980 beginning April 1. Four prototypes were built with FY 1978 funding and engineering tests have been carried out with satisfactory results. The Mk I is intended to replace the PPS-4 system, one of the two ground-based field surveillance radars in service with the GSDF. The Mk I has a phased array antenna system, advanced ECCM system, and modern display equipment. It is lighter and smaller than the PPS-4 which is based on a US Army system supplied to the GSDF. The GSDF plans to adopt the Mk I as standard equipment in FY 1981, and full-scale procurement will start the following year.

The TRADI/GSDF are also promoting development of the Mk II field surveillance radar that will replace the TPS-P6 system in current use. Operational studies have been completed at the GSDF Communications School and a request to start the development program is being prepared. The program will be included in the fund requests for FY 1981.

Details of the Mk II are unavailable. It is, however, presumed that the system will be a self-propelled type since the TPS-P6 system lacks mobility and considerable time is required to set up or remove the system in the field.

CSO: 4120

SCIENCE AND TECHNOLOGY

GSDF TO REQUEST MORE FUNDS FOR NIGHT SIGHTING EQUIPMENT

Tokyo JPE AVIATION REPORT-WEEKLY in English 12 Mar 80 p 10

[Text]

The GSDF is expected to request ¥400 million to ¥500 million to procure night sighting equipment in the FY 1981 (April 1981-March 1982) budget as funds for FY 1980 were reduced to about ¥73 million from an originally requested ¥400 million.

The original request for FY 1980 covered an infrared-ray detection system, a sensor type night sighting system and 70 units of goggle type night sighting equipment. However, the authorized ¥73 million comprises about ¥35 million for the sensor type night sighting system and about ¥38 million for only 15 of the goggle type equipment. The expected request for FY 1981 will involve the remaining and additional equipment.

The GSDF, acknowledging the importance of the night sighting equipment, intends apparently to take more positive action in FY 1981 to promote deployment of existing systems and technical development of new types.

At present, the GSDF is using the JGVS-V2 infrared-ray detection system and the JGVS-V1 medium-range sensor type night sighting system, both of which were domestically developed in FY 1967-71 during the 3rd Defense Buildup Program. They are about to be issued to front line units as sufficient amounts have been procured for training purposes.

As for the goggle type equipment, the GSDF acquired several units in FY 1978 for operational evaluation in the 5th GSDF Division's night training. The evaluation proved the usefulness of the equipment and the GSDF planned to purchase 70 units in FY 1980 for service schools before issuance to infantry forces in FY 1981. However, this plan will be delayed for one to two years because of the substantial cut in funds for FY 1980.

CSO: 4120

BRIEFS

UNDERWATER EARTHQUAKE RECORDER--Yokosuka, 12 Mar--A research ship of the National Research Center for Disaster Prevention installed two newly-developed underwater earthquake recorders Wednesday at the 250-meter sea bottom of Miura near here for testing purposes. The state-run center will conduct a 2-day test of its new quake recorders. Another conventional submarine quake recorder was also sunk at the same depth off Miura in Sagami Bay. The new recorders, made up of seismograph, seismoscope and battery, are stored in two ball-shaped aluminum alloy containers, each weighing 300 kilograms. The recorders can continue observations for about 40 days, center officials said. On Thursday, the research ship will send radio signals to the two new recorders to detach them from their anchors for surfacing. [Text] [OW120535 Tokyo KYODO in English 0315 GMT 12 Mar 80 OW]

LIGHT-EMITTING DIODE--Osaka, March 13 KYODO--A special type of light-emitting diode (LED) that produces four different colors--red, orange, yellow and green--has been commercially developed, Sanyo Electric Co., of Osaka, announced Thursday. According to the company, its "multi-color LED" is without any commercial precedent in the world because every known product of the kind, domestic or foreign, had been capable of generating only one color. Many workers had to use stained glass to vary the original monochrome light of such semiconductors widely used in watches, portable calculators and numerous other types of indicating electronic apparatus. According to Sanyo, its new product is of the same principle as the conventional LED's which generate light by running an electric current through a crystal of some gallium compound. The new product, a little chip, measuring, 0.4 millimeters square and 0.25 millimeters thick, features four layers of gallium phosphate crystal, with a groove cut into each layer to produce any of the four tints depending on the current strength, it said. It produces a red color when the current is 5 milli-amperes and a green color with a current of 15 milli-amperes. The in-between orange and yellow colors may be produced by adjusting the amperage between 5 and 15 milli-amperes. Wide sales of the new LED to other makers of appliance and measuring instruments as well as application to its own products are planned by the company. The current price of yen 60, double the monochrome equivalent, could be lowered to about yen 40 through mass production, Sanyo said. [Text] [Tokyo KYODO in English (no time given) 13 Mar 80 OW]

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